



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0813; Project Identifier MCAI-2021-01316-A; Amendment 39-22194; AD 2022-20-10]

RIN 2120-AA64

Airworthiness Directives; Vulcanair S.p.A. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Vulcanair S.p.A. Model P.68, P.68B, P.68C, P.68C-TC, P.68 “Observer,” P.68TC “Observer,” P.68 “Observer 2,” and P.68R airplanes. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI identifies the unsafe condition as corrosion causing failure of the upper rudder hinge. This AD requires repetitively inspecting the upper and lower rudder hinges for corrosion, cracking, and damage, and depending on the inspection results, taking corrective action. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No.FAA-

2022-0813; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the MCAI, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information identified in this final rule, contact Vulcanair S.p.A., Fulvio Oloferni, via Giovanni Pascoli, 7, 80026 Naples, Italy; phone: +39 081 5918 135; email: airworthiness@vulcanair.com; website: vulcanair.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at regulations.gov under Docket No. FAA-2022-0813.

FOR FURTHER INFORMATION CONTACT: John DeLuca, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7369; email: john.p.deluca@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Vulcanair S.p.A. Model P.68, P.68B, P.68C, P.68C-TC, P.68 “Observer,” P.68TC “Observer,” P.68 “Observer 2,” and P.68R airplanes. The NPRM published in the *Federal Register* on July 8, 2022 (87 FR 40755). The NPRM was prompted by AD 2021-0267, dated November 24, 2021 (referred to after this as “the MCAI”), issued by the European Union Aviation Safety Agency (EASA),

which is the Technical Agent for the Member States of the European Union. The MCAI states:

Occurrences were reported of failures of the upper rudder hinge on P.68 aeroplanes due to corrosion, which can occur if the aeroplane is operated in an environment which may favour the formation of corrosion.

This condition, if not detected and corrected, could interfere with rudder movement and ultimately lead to failure, possibly resulting in loss of control of the aeroplane.

To address this potential unsafe condition, Vulcanair issued the SL [Vulcanair Aircraft Alert Service Letter No. 23, Revision 2, dated September 29, 2021] and updated the applicable AMM [Aircraft Maintenance Manual], as defined in this [EASA] AD, to provide inspection instructions.

For the reason described above, this [EASA] AD requires repetitive inspections of the upper and lower rudder hinges and, depending on findings, accomplishment of applicable corrective action(s).

In the NPRM, the FAA proposed to require repetitively inspecting the upper and lower rudder hinges for corrosion, cracking, and damage, and depending on the inspection results, taking corrective action. The FAA is issuing this AD to address the unsafe condition on these products. You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0813.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe

condition described in the MCAI referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed Vulcanair Aircraft Alert Service Letter No. 23, Revision 2, dated September 29, 2021, which specifies procedures for inspecting the upper and lower rudder hinges for corrosion, cracking, and damage, and specifies contacting Vulcanair for instructions to repair an affected rudder hinge. This service information also refers to the applicable aircraft maintenance manuals for additional inspection procedures.

The FAA also reviewed the following service information, which specifies procedures for maintaining various structural parts. These documents are distinct since they apply to different airplane models.

- Section 6, Structures, of the Vulcanair Aircraft P.68C & P.68C-TC Maintenance Manual, AMM10.702-1, Revision 7, dated May 11, 2021.
- Section 6, Structures, of the Vulcanair Aircraft P.68 Observer 2 & P.68TC Observer Maintenance Manual, AMM10.702-2, Revision 8, dated November 11, 2021.
- Section 6, Structures, of the Vulcanair Aircraft P.68R Maintenance Manual, AMM10.702-3, Revision 12, dated December 12, 2019.
- Section C, Airframe, of the Vulcanair Aircraft P68C Maintenance Manual, NOR10.709-1B, Revision 9, dated August 30, 2017.
- Section C, Airframe, of the Vulcanair Aircraft P68-TC Observer Maintenance Manual, NOR10.709-4A, Revision 4, dated March 15, 2018.
- Section B, Structure, of the Vulcanair Aircraft A/C P68B Victor Maintenance Manual, NOR.10.709-9, Revision 16, dated September 22, 2017.

• Section C, Airframe, of the Vulcanair Aircraft P68 Observer 2 Maintenance Manual, NOR10.709-10, Revision 5, dated October 23, 2017.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Differences Between this AD and the MCAI

The MCAI applies to Model P.68 “Victor,” P.68B “Victor,” and P.68R “Victor” airplanes, which are identified on the FAA type certificate as Model P.68, P.68B, and P.68R airplanes, respectively.

The MCAI requires contacting Vulcanair for approved repair instructions, while this AD does not.

Costs of Compliance

The FAA estimates that this AD affects 14 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per airplane	Cost on U.S. operators
Visual inspection of upper and lower rudder hinges	2 work-hours x \$85 per hour = \$170	Not applicable	\$170 per inspection cycle	\$2,380 per inspection cycle
Disassembly for dye inspection of the top rudder hinge (bracket)	7 work-hours x \$85 per hour = \$595	Not applicable	\$595 per inspection cycle	\$8,330 per inspection cycle
Disassembly for dye inspection for the lower rudder hinge (control tube)	8 work-hours x \$85 per hour = \$680	Not applicable	\$680 per inspection cycle	\$9,520 per inspection cycle

Dye inspection of upper and lower rudder hinges (post disassembly)	2 work-hours x \$85 per hour = \$170	Not applicable	\$170 per inspection cycle	\$2,380 per inspection cycle
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The FAA estimates the following costs to do any necessary actions that would be required based on the results of the inspection. The FAA has no way of determining the number of airplanes that might need these actions.

On-condition costs

Action	Labor Cost	Parts Cost	Cost per airplane
Replacement of the top rudder hinge (bracket)	7 work-hours x \$85 per hour = \$595	\$320	\$915
Replacement of the lower rudder hinge (control tube)	8 work-hours x \$85 per hour = \$680	\$1,020	\$1,700

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-20-10 Vulcanair S.p.A.: Amendment 39-22194; Docket No. FAA-2022-0813; Project Identifier MCAI-2021-01316-A.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Vulcanair S.p.A. Model P.68, P.68B, P.68C, P.68C-TC, P.68 “Observer,” P.68TC “Observer,” P.68 “Observer 2,” and P.68R airplanes, all serial numbers (S/Ns), certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 5540, Rudder Structure.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI identifies the unsafe condition as corrosion causing failure of the upper rudder hinge. The FAA is issuing this AD to address damage of the upper and lower rudder hinges. This condition, if not addressed, could result in interference with the rudder movement and lead to failure of the rudder, which could result in loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Within 200 hours time-in-service (TIS) after the effective date of this AD or within 12 months after the effective date of this AD, whichever occurs first, and thereafter at intervals not to exceed 200 hours TIS or 12 months, whichever occurs first, inspect the upper and lower rudder hinges for looseness, corrosion, cracking, and damage in accordance with steps 1 through 4 of Vulcanair Aircraft Alert Service Letter No. 23, Revision 2, dated September 29, 2021.

(1) If there is no looseness, no corrosion, no cracking, and no damage, do the actions in paragraphs (g)(1)(i) and (ii) of this AD.

(i) Remove the rudder by following the removal procedure for your airplane identified in table 1 to paragraph (g)(1)(i) of this AD.

**Table 1 to paragraph (g)(1)(i) – Applicable Maintenance Manuals (MMs) for
Rudder Removal**

Airplane Model	Vulcanair MM Rudder Removal Procedure	Airplane S/N
P.68 and P.68B	Paragraph 6.2, Removal and Installation of the Rudder, of Chapter 6 – Vertical Empennage, of Section B, Structure, of the Vulcanair Aircraft A/C P68B Victor Maintenance Manual, NOR.10.709-9, Revision 16, dated September 22, 2017	All S/Ns
P.68R	Paragraph 6.2, Removal and Installation of the Rudder, of Chapter 6 – Vertical Empennage, of Section B, Structure, of the Vulcanair Aircraft A/C P68B Victor Maintenance Manual, NOR.10.709-9, Revision 16, dated September 22, 2017	S/N 40 and S/N 430
	Paragraph 3.2.13, Removal of Rudder, of Section 6, Structures, of the Vulcanair Aircraft P.68R Maintenance Manual, AMM10.702-3, Revision 12, dated December 12, 2019	S/N 453 and larger
P.68C	Paragraph 5.10, Removal of the Rudder, of Section C, Airframe, of the Vulcanair Aircraft P68C Maintenance Manual, NOR10.709-1B, Revision 9, dated August 30, 2017	S/N up to and including S/N 460
	Paragraph 3.2.13, Removal of Rudder, of Section 6, Structures, of the Vulcanair Aircraft P.68C & P.68C-TC Maintenance Manual, AMM10.702-1, Revision 7, dated May 11, 2021	S/N 462 and larger
P.68C-TC	Paragraph 5.10, Removal of the Rudder, of Section C, Airframe, of the Vulcanair Aircraft P68C Maintenance Manual, NOR10.709-1B, Revision 9, dated August 30, 2017	S/N up to and including S/N 392
	Paragraph 3.2.13, Removal of Rudder, of Section 6, Structures, of the Vulcanair Aircraft P.68C & P.68C-TC Maintenance Manual AMM10.702-1, Revision 7, dated May 11, 2021	S/N 467 and larger
P.68 Observer	Paragraph 5.10, Removal of the Rudder, of Section C, Airframe, of the Vulcanair Aircraft P68C Maintenance Manual, NOR10.709-1B, Revision 9, dated August 30, 2017	All S/Ns

Airplane Model	Vulcanair MM Rudder Removal Procedure	Airplane S/N
P.68 Observer 2	Paragraph 5.10, Removal of Rudder, of Section C, Airframe, of the Vulcanair Aircraft P68 Observer 2 Maintenance Manual, NOR10.709-10, Revision 5, dated October 23, 2017	S/N up to and including S/N 451
	Paragraph 3.2.13, Removal of Rudder, of Section 6, Structures, of the Vulcanair Aircraft P.68 Observer 2 & P.68TC Observer Maintenance Manual, AMM10.702-2, Revision 8, dated November 11, 2021	S/N 465 and larger
P.68TC Observer	Paragraph 5.10, Removal of the Rudder, of Section C, Airframe, of the Vulcanair Aircraft P68C Maintenance Manual, NOR10.709-1B, Revision 9, dated August 30, 2017	S/N up to and including S/N 394
	Paragraph 5.10, Removal of Rudder, of Section C, Airframe, of the Vulcanair Aircraft P68-TC Observer Maintenance Manual, NOR10.709-4A, Revision 4, dated March 15, 2018	S/N 400 up to and including S/N 461
	Paragraph 3.2.13, Removal of Rudder, of Section 6, Structures, of the Vulcanair Aircraft P.68 Observer 2 & P.68TC Observer Maintenance Manual, AMM10.702-2, Revision 8, dated November 11, 2021	S/N 481 and larger

(ii) Perform a dye penetrant inspection of the hinges, paying particular attention to the pivot/attachment holes, using a dye penetrant solution for manual non-destructive testing using the following:

- (A) Penetrant System: TYPE II (Visible Dye);
- (B) METHOD C (Solvent Removable);
- (C) Developer: FORM D (Non-aqueous); or
- (D) Solvent Remover: CLASS 1 (Halogenated).

(2) If there is any looseness, corrosion, cracking, or damage, replace the hinge before further flight.

(h) Special Flight Permit

Special flight permits are prohibited.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD and email to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Additional Information

(1) For more information about this AD, contact John DeLuca, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7369; email: john.p.deluca@faa.gov.

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2021-0267, dated November 24, 2021, for more information. You may view the EASA AD at regulations.gov in Docket No. FAA-2022-0813.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Vulcanair Aircraft Alert Service Letter No. 23, Revision 2, dated September 29, 2021.

- (ii) Section 6, Structures, of the Vulcanair Aircraft P.68C & P.68C-TC Maintenance Manual, AMM10.702-1, Revision 7, dated May 11, 2021.
- (iii) Section 6, Structures, of the Vulcanair Aircraft P.68 Observer 2 & P.68TC Observer Maintenance Manual, AMM10.702-2, Revision 8, dated November 11, 2021.
- (iv) Section 6, Structures, of the Vulcanair Aircraft P.68R Maintenance Manual, AMM10.702-3, Revision 12, dated December 12, 2019.
- (v) Section C, Airframe, of the Vulcanair Aircraft P68C Maintenance Manual, NOR10.709-1B, Revision 9, dated August 30, 2017.
- (vi) Section C, Airframe, of the Vulcanair Aircraft P68-TC Observer Maintenance Manual, NOR10.709-4A, Revision 4, dated March 15, 2018.
- (vii) Section B, Structure, of the Vulcanair Aircraft A/C P68B Victor Maintenance Manual, NOR.10.709-9, Revision 16, dated September 22, 2017.
- (viii) Section C, Airframe, of the Vulcanair Aircraft P68 Observer 2 Maintenance Manual, NOR10.709-10, Revision 5, dated October 23, 2017.
- (3) For service information identified in this AD, contact Vulcanair S.p.A., Fulvio Oloferni, via Giovanni Pascoli, 7, 80026 Naples, Italy; phone: +39 081 5918 135; email: airworthiness@vulcanair.com; website: vulcanair.com.
- (4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.
- (5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on September 19, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-22703 Filed: 10/21/2022 8:45 am; Publication Date: 10/24/2022]